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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/625,996	07/26/2000	R. Dean Adams	FIS9-2000-0138US1	8495

30743 7590 04/08/2003

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RESTON, VA 20190

EXAMINER

CHAUDRY, MUJTABA M

ART UNIT	PAPER NUMBER
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2133

DATE MAILED: 04/08/2003

10

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/625,996

Applicant(s)

ADAMS ET AL.

Examiner

Mujtaba K Chaudry

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 06 February 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

The corrected or substitute drawings were received on February 06, 2003. These drawings are accepted.

Specification

The corrected or substitute specification were received on February 06, 2003. The specification is accepted.

Response to Amendment

Applicant's arguments/amendments with respect to amended claims 1, 8 and 12 and original claims 2-7, 9-11 and 13-17 filed February 06, 2003 have been fully considered but are not persuasive. The examiner would like to point out that this action is made final which is necessitated by applicant's amended claims (See MPEP 706.07a).

Applicant contends, "there is no structure in Schwartz (prior art, see paper No. 7) that corresponds in any way to the means for discriminating as claimed." The examiner would like to point out that the claims 1, 8 and 12 recite the limitation of "...discriminating a source of a test command..." which is defined in the specification (page 15, lines 15-17) as a means to distinguish between the type of test—namely manufacturing level, board level and system level. It is important to note that these tests are not explicitly stated in the claim language and therefore the examiner interprets test command to be any test command as directed by the

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MPEP. Schwartz teaches an embedded memory that is configured to store input data in a location specified by an address signal when a write signal is asserted and is further configured to provide output data from a location specified by the address signal when a read signal is asserted. In normal operation, Schwartz teaches the debug signal to be de-asserted, however, when a part requires debugging it is possible to modify the pattern data (analogous to test command in the present application) and expected data seen by RAM 102. This is accomplished by asserting the debug signal, which brings the data buses under external control. During a write cycle multiplexer 202 will select the external data bus as the data pattern provided to the RAM 102. Similarly, during a read cycle, multiplexer 204 will select the external data bus as the expected data for comparator 106. The external data bus instrument by buffer 206, which is driven by the user provided external data signal. In this manner, the data written to RAM 102 can be controlled by the user. This configuration allows the user to create new memory test programs simply by modifying the vectors used to clock the BIST, which provides increased control of the memory debugging process and allows greater diagnostability of failing parts. For example, Schwartz teaches if a certain part of the BIST algorithm is failing, it is possible to modify the data pattern to determine whether the problem is promised by the pattern or by the address sequence. Schwartz teaches an external data source as programmable test equipment. A user places an integrated circuit in a socket controlled by the programmable test equipment and runs a test program which asserts the debug signal and applies a sequence of external data signal values to the integrated circuit in synchronization with the clock signal used by the BIST circuitry. *The test program also monitors the BIST status signal to determine the points in the test program at which memory faults are detected, and compiles an overall summary of the*

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test results when the test program is completed. The user can then experiment by modifying the test program to determine various aspects of the detected memory faults, thereby compiling evidence as to the cause of the memory faults. The examiner would like to point out that the external instructions administered by the user are external test commands which the BIST circuitry is able to discriminate and perform specific tests as stated in the present application.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-17 are rejected under 35 U.S.C. 102(e) as being unpatentable over Schwartz (USPN 5982681). See paper No. 7.

The examiner disagrees with the applicant and maintains all rejections of amended claims 1, 8 and 12 and original claims 2-7, 9-11 and 13-17. All arguments have been considered. It is

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the examiner's conclusion that amended claims 1, 8 and 12 and original claims 2-7, 9-11 and 13-17 are not patentably distinct or non-obvious over the prior art of record.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

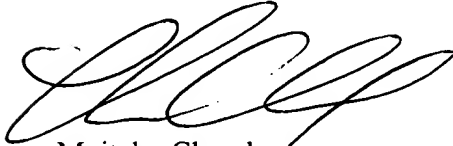
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiries concerning this communication should be directed to the examiner, Mujtaba Chaudry who may be reached at 703-305-7755. The examiner may normally be reached Mon – Thur 7:30 am to 4:30 pm and every other Fri 8:00 am to 4:00 pm.

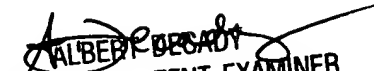
If attempts to reach the examiner by telephone are unsuccessful, please contact the examiner's supervisor, Albert DeCady at 703-305-9595. The fax phone number for the organization where this application is assigned is 703-746-7239.

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Any inquiry of general nature or relating to the status of this application or proceeding should be directed to the receptionist at 703-305-3900.



Mujtaba Chaudry
Art Unit 2133
March 26, 2003



~~ALBERT DECADY~~
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100